REMARKS

This responds to the Office Action mailed on November 22, 2004.

Claims 1 – 13, 18 – 20 and 22 are amended, no claims are canceled, and no claims are added; as a result, claims 1 – 25 remain pending in this application. Reconsideration is respectfully requested. No new matter is added by this amendment to the claims.

§102 Rejection of the Claims

Claims 1-13 and 17-22 were rejected under 35 USC § 102(e) as being anticipated by Dye et al. (U.S. 6,208,273). Applicant's claims 1 - 8, as amended, are directed to a method and system for caching web page content. As recited, the data type of a portion of the web page content is identified, one of a plurality of compression algorithms is selected based on the data type, and the portion of the web page content is compressed using the selected compression algorithm in response to a request to cache.

In accordance with Applicant's claims 1 and 5, for example, each web page may have several data types which may be compressed with different compression algorithms. Some compression algorithms are more suitable for compression of certain types of data. For example, a compression based on one of the LZ type algorithms may be invoked to compress text data, HTML data, XML data, XHTML data, interpreted data, and portable network graphics (PNG) data. Compression based on the LZW algorithm, for example, may be implemented for data types such as graphic interface format (GIF) data, while compression based on the LZH algorithm may be implemented for LZH data, joint photographic experts group (JPEG), and moving pictures experts group (MPEG) data including MPEG Layer-3 (MP3) data and MPEG Layer-4 (MP4) data. Compression based on the LZ77 algorithm, for example, may also be implemented for data types such as JAR and ZIP data, as well as for data types such as SQZ data, UC2 data, ZOO data, ARC data, ARJ data and PAK data.

As recited in Applicant's claim 2, for example, a different (second) compression algorithm may be used to compress a different portion of the same web page content when identified. Therefore, different portions of the same web page may be compressed with a different compression algorithm depending on the type of data.

Dye, on the other hand, does not teach, suggest or motivate ***the selection of a compression algorithm*** based on a data type. Dye uses either a parallel or a serial compression ***format*** of the same compression algorithm. Dye states that the requesting unit may request different compression formats (i.e., either parallel or serial) for higher memory efficiency (see Dye column 18, lines 33 – 46). In this way, Dye can use either a parallel or serial format for the same data. Any compression algorithm can probably be used. Dye's compression formats (parallel or serial), however, do not correspond to Applicant's compression algorithms. Applicant finds no selection of compression algorithms in Dye based on data type.

Dye is concerned primarily with the compression of cached ***system data*** and uses a parallel compression/decompression method for his system data because parallel compression can be done more quickly. Furthermore, Dye does not compress different portions of the system data differently. Dye states that system data may be compressed and stored in a lossless format, while data that can be compressed with loss during recovery is compressed in a lossy format (see Dye column 36 lines 61 – 67 through column 37 lines 1 – 9). Thus, Dye compresses all system data the same way and does not make any selection between portions of the system data.

Dye, furthermore, does not teach the compression and caching of web page content and in particular, does not teach the compression of portions of the web page content based on the data type. Dye's cache is for system memory (i.e., system data and instructions) including primarily compressed program code (see Dye column 15, lines 6 – 27).

Applicant's claims 2, 6, 13, 19 and 22, as amended, further recites that the content of the web page comprises a plurality of data types and that at least some of the data types are identified by data type tags. The data type is identified by reading the data type tag associated with the portion of the web page content. Applicant find's no teaching, suggestion or motivation in Dye to read tags that identify data types, and further, finds no teaching, suggestion or motivation to select a compression algorithm based on the tag. Dye uses 'block tags' to identify the size of blocks of data for reading from memory (see Dye column 21, lines 31 – 36), however

these block tags do not relate to the type of data, only the size of the data. Dye states that the tag field allows multiple outstanding requests to be issued to the decompression engine in parallel (see Dye column 21, lines 39 – 43). This however, is not related to tags that identify the type of data in portions of web page content.

Applicant's claims 4 and 7, as amended, recite the use of compression engine input buffers and output buffers to 'hold' the portion of the web page during compression and during decompression. The use of separate buffers for each compression engine is not taught, suggested or motivated by Dye. Dye operates directly on the system memory 110 through memory controller 560 (see Dye FIG. 8, column 19 lines 49 – 67 and column 20 lines 1 – 2).

In view of the above, Applicant submits that claims 1 – 8 are allowable over the cited art.

Applicant's claims 9 – 17 are directed to a compression engine and Applicant's claims 18 – 25 are directed to a decompression engine. Claims 9 – 17 recite that the compression engine comprises a plurality of compression accelerators and controller. The controller identifies a data type for different portions of web page content to be cached. The controller also invokes a selected one of the compression accelerators to compress a portion of the web page content based on the identified data type. The compression algorithm is selected based on the identified data type and the compression algorithm being implemented by one of the compression accelerators. In view of the remarks for claims 1 – 8, Applicant's submit that claims 9 – 17 are allowable over the cited art. Claims 18 – 25 have similar recitations to claims 9 – 17 and are also believed to be allowable over the cited art.

§103 Rejection of the Claims

Claims 14-16 and 23-25 were rejected under 35 USC § 103(a) as being unpatentable over Dye et al. and further in view of Kost (U.S. 5,867,112). Based on the above remarks for claims 1 – 25, Applicant submits that combining Kost with Dye does not result in Applicant's claims invention because neither Dye nor Kost teaches, suggests or motivates, among other things, the selection of a compression algorithm based on a data type of a portion of a web page. Therefore that claims 14-16 and 23-25 are believed to be allowable over the cited art.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney, Greg Gorrie at (480) 659-3314, or Applicant's below-named representative at (612) 349-9592 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

RUI LIN ET AL.

By their Representatives,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 24 day of January 2005.

Dennis J. Kemph

Name

Signature